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AN ENQUIRY INTO THE
VALUE OF THE SIGNS AND SYMPTOMS
REGARDED AS DIAGNOSTIC OF
CONGENITAL SYPHILIS
IN THE INFANT.



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PREFACE.

I HAVE reprinted the following paper in order to secure for it a wider circulation than it might obtain in the volume of Transactions of the St. Andrews' Graduates Medical Association.

My object is to invite attention to the true nature of those morbid manifestations which are generally regarded as evidence of the Hereditary Transmission of Syphilis to Infants. That this frequently occurs is a canon of faith, and one duly taught to every tyro of medicine. It has been employed as the most cogent argument to induce the Legislature to extend the Contagious Diseases Act to the civil population.

If the allegation be true, it is a fact worthy of all the importance claimed for it; but if it be untrue, it is obviously undesirable, and not creditable to our profession, that legislation should be based upon an error for which we are solely responsible.

T. B.

SOUTHWICK PLACE,

January, 1874.

AN ENQUIRY INTO THE VALUE OF THE SIGNS AND SYMPTOMS REGARDED AS DIAGNOSTIC OF CONGENITAL SYPHILIS IN THE INFANT.

BY THOMAS BALLARD, M.D.,
A VICE-PRESIDENT OF THE ASSOCIATION.

WE are all accustomed to hear much about Congenital Syphilis, its fatal effects and prejudicial influence upon our race. The prevalence of it has been much insisted on lately. Sir W. Jenner, in his evidence before the Parliamentary Committee, says "Congenital syphilis is exceedingly prevalent, and leads to a large number of deaths annually." Mr. Curgenvén, in a paper "On the waste of Infant Life," says "Syphilis, as an hereditary disease destroying infant life, appears to be on the increase; in fact this disease has universally increased in this country of late years;" and in support of this statement he quotes the following statistics. "The deaths of children from hereditary syphilis, during the year 1864, under the age of one year, were 1,089; and under five years of age, 1,191. In 1850 the total number of deaths from syphilis was 554, or 31 to one million persons living; and in 1864, the total was 1,550, or 75 to one million persons living. In the parish of Marylebone it has been found that four per cent. of the deaths of illegitimate children occurred from syphilis." Hospitals and dispensaries record that infants suffering with this malady are treated there by hundreds, and individual practitioners avow their familiarity with it.

Doubtless it appears strange for me to differ from this general testimony, but my experience compels me to do so, and justifies me in asserting that the subject is involved in much error. I have practised my profession in the same neighbourhood for thirty years, and I have been accustomed to keep a record of the particulars of the ailments of those whom I have attended. I possess therefore a sort of medical history of a

large number of persons. Many have been born, have grown up, and are still under my observation. Many of these have had syphilis, and in them I have watched and recorded its effects, but have entirely failed to trace any evidence of its transmission to offspring. Fifteen years ago I was earnestly engaged in tracing some of the causes of the ailments of infants, and my attention was particularly attracted to this subject. Since then I have embraced every opportunity of observing and investigating it: I have solicited my medical friends to show me cases of congenital syphilis, and have visited public institutions for the purpose of seeing them. Thus I have had opportunities of seeing and investigating many cases which have been pronounced typical. I have followed many of these to their homes, examined the parents, enquired into their history, and subsequently watched the progress of the infant. In no case have I found any reason to attribute the disorder to inherited disease; the symptoms which were regarded as manifestations of syphilis being satisfactorily accounted for by the conditions attending the child, and easily cured when their true cause was recognised.

The literature of the subject shows that although the idea of the transmission of syphilis to the offspring is of older date, yet it has been chiefly during the present century that a special set of symptoms have been identified as manifestations of its occurrence, and this has been for the most part the work of French physicians. Their conclusions have been accepted by British authors, and they now constitute the doctrine which is held and taught amongst us.

There are three periods during the growth of a child when certain special phenomena are supposed to indicate that the syphilitic poison has been transmitted to it by infected parents:—

- (1) Before birth.
- (2) At birth.
- (3) Some time after birth.

I propose to consider each of these periods separately, and to endeavour to show that the phenomena in question are susceptible of a simpler and more obvious explanation.

BEFORE BIRTH.

It is a well established and undisputed fact that a woman who has been infected by syphilis is apt to abort and have premature deliveries, bringing forth dead children, and that this is the con-

sequence of her contamination. But it has been inferred from this, erroneously as I think, that the foetus dies in utero in consequence of the direct influence of the virus upon its organism. Trousseau says he is "unacquainted with any lesion of the placenta attributable to syphilis." He considers the cause of syphilitic abortion to be "the death of the foetus in utero, and this in consequence of syphilis attacking the foetus itself." I can find no proof of this, and, in the absence of such, it appears to me to be more reasonable to regard the death of the foetus as the consequence of a failure on the part of the maternal system to sustain its nutrition any longer. We all know by observation how seriously the economy of the mother suffers by the disease, how much of cachexia it causes, how deeply seated, and how persistent are its deleterious effects; no wonder that such an important function as the maintenance of the growth of a new being should be prejudiced by it. The abortion is 'obviously, as Trousseau says, "merely the expulsion of the dead foetus"—but why has it died? Is not the defective state of the soil upon which it was growing sufficient to account for it? Some think that the germ may receive the contamination direct from the male parent; if so, why does it grow for many weeks or months, and then die? It seems reasonable to suppose that an inherent poison which is destined to kill a foetus in three or six months would have exercised its fatal virulence on the more weakly germ long before.

The appearances which are relied upon as evidence of the foetus itself being affected by the poison of syphilis are, the partial decomposition and the loosening of the cuticle which are often seen on the bodies of still-born children. These are well accounted for by the fact, that, in the majority of instances, the foetus dies several weeks or months before it is expelled, during which time it is necessarily macerating in the liquor amnii.

A state of putridity has been mentioned by some authors as an additional proof of the contamination of the foetus, but this involves the attributing to the syphilitic virus of a chemical or septic action, for which I think few would undertake to contend. In cases where putridity has actually been observed, I suggest that it could only be accounted for by the atmosphere having access to the body for some time before it was expelled.

Similar early death and expulsion of the ovum or foetus occur in those suffering from other forms of cachexia, particularly Bright's disease. I have seen no difference between the appearance of an

aborted ovum or the still-born child of a mother suffering from this cachexia, and that of one born of a syphilitic parent. And so far as I have been able to observe, in either case, when the child was born alive, it had a fair chance of living, and in course of time overtaking in its growth all that it may have lost by reason of its parent's defect.

I submit, therefore, that there is no evidence to prove, nor reason to infer, that the organism of the child is intrinsically affected by the syphilitic virus, the death in utero seeming to be satisfactorily accounted for by some defect in the maternal system, the result of its contamination.

The following cases illustrate this part of my subject.

CASE I.—*A wife suffering from syphilis is delivered in the eighth month of a dead child.*

A lady, in March 1861, had been suffering for many months from syphilis communicated to her by her husband at their marriage, and had been under treatment by an eminent physician. On the 13th she was delivered of a still-born child, the epidermis of which was loose and peeled off when touched. This lady suffered from repeated attacks of ulceration of the tonsils and back of pharynx, together with severe periosteal pains, until the end of 1868, since which time she has enjoyed good health, but has not again been pregnant.

CASE II.—*Syphilis in both husband and wife; abortions and healthy children.*

In 1852 a young man was under my care for a primary syphilitic sore, he was averse from following much treatment, and subsequently married in 1853. In 1859 he came under treatment for ulceration and abscesses of the scrotum, in 1860 for considerable ulceration and thickening of scrotum, ecthymatous ulcers on arms and body, and scaly eruption on elbows. He was treated with iodide of mercury and bark, and since then has remained well.

His wife came under treatment in June, 1855, for "a hard swelling over tuberosity of tibia, which had been very painful for two months." Catamenia were present on the 8th. On February 2nd, 1856, she was delivered of a small male child, who is still living and in good health. She had catamenial periods in June and July. On October 26th, a profuse discharge occurred, which continued without interruption until December 16th, when labour

pains set in, and an entire ovum passed, containing a foetus of apparently four months' growth. In October, 1858, she again miscarried. In April, 1860, she gave birth to a living child, who is also still living and in good health.

From March to June, 1861, she was under treatment for a severely painful node on head of right tibia. In December, she again aborted at four months.

In May, 1863, she was again under treatment for a painful tumour just below the right knee, which eventually ulcerated. In June, she had a painful swelling over head of tibia on inner side of left knee. The catamenia were present on February 5th. On August 22nd, she was delivered of twins, one dead, and the other alive, which survived twenty-two hours. On January 16th, 1866, she gave birth to a dead child after a pregnancy of eight months, the skin of which seemed partially decomposed, as it came off in large pieces. In September, 1868, she had an attack of hemiplegia. In February, 1869, she died most suddenly.

CASE III. — *Chronic Bright's disease; abortion, premature delivery, &c.*

A lady came under my care in 1862, suffering from chronic Bright's disease in a severe degree. On June 24th, she aborted at the second month. On November 11th, 1863, she was delivered of a child at full term, it was remarkably small, but has survived, and is now strong and healthy. On April 24th, 1865, she was delivered of a small weakly infant, which died on June 21st, in spite of all the efforts which were made to rear it. On June 2nd, 1868, she was delivered of a child at eight months, which was still-born. In 1871, she herself died.

CASE IV. — *Syphilis communicated to a wife at marriage; abortions.*

Mrs. E., æt. twenty-two, was married in January, 1870. In March, she was ill with sore throat and severe pains in her limbs. She had advice and was said to be suffering from neuralgic rheumatism. She continued under treatment without benefit until August 16th, when she came under my care. She was then in a very bad state. She was thin and pale, her aspect being that of great suffering, her hair was nearly all off, and it came away with a slight touch. She was very deaf. She had suffered severe pain in her left eye for three months; it was now very painful, much congested, and could not bear the light; she could

scarcely discern anything with it. Her trunk and limbs were covered with a lichenous rash of a dusky colour, giving the skin a muddy appearance. There was such severe pain in her legs and feet that she could obtain no sleep, both legs and feet were much swollen and were very tender. There were small hard tender swellings under the skin of the legs, which I suppose were distended or inflamed lymphatic vessels. She complained of severe pain in the hips. The throat was not very sore, but the tonsils bore the remnants of ulceration. There was a systolic murmur at sternum and left costal cartilage on level with nipple. The urine was pale and clear.

I examined her husband on August 21st. He had an eruption on trunk and thighs, in some places of small bullæ, in others of cicatrices of bullæ surrounded by copper coloured areolæ. He could not open his mouth widely because of stiffness of the articulation of the left side. Has suffered like his wife from severe "rheumatic" pains in shoulders, arms, and knees since February last. At one time the pain was so bad in his shoulder that he could scarcely move it; the pain has always been worse at night. He has a large mass of swollen glands behind the left angle of jaw, which he says has existed a long time. He denies having had any venereal disease, but remembers last autumn having a sore throat on several occasions. He has had no advice or treatment.

They were both advised a hot air bath with half a drachm of calomel each night. On October 14th, Mrs. E. had used twenty-four baths, she was much better, had gained flesh, her hearing and vision were restored, but there remained a little pain in the eye. On November 11th, the eye was quite well, hearing restored, hair did not come off, eruption had disappeared from body, felt well except some pain in shin bones and ankles at night. She had used twelve more baths, in all thirty-six.

December 20th.—She had symptoms of pregnancy, catamenia had not appeared for nine weeks. January 14th, 1871.—She aborted.

October 23rd.—She was quite well in health, and had been pregnant since April 26th. November 20th.—Delivered of an immature foetus, apparently of about five months' growth, the skin of which was loose.

October 29th, 1872.—She was six months and a half advanced in pregnancy. At 6 p.m., having just come in from a walk, and without any warning whatever, she was suddenly delivered of an entire ovum, containing a foetus, which was regarded by

an experienced accoucheur to be of between six and seven months' growth. It was dead, and she supposed it had been so a week.

May 14th, 1873.—She was again six months advanced, and felt the child strongly.

On July 27th she was delivered of a still-born, well-grown child. Five weeks previously she had suffered a severe fall; since which she believes the child had been dead, as she had not felt it move.

AT BIRTH.

If the death in utero of the foetus is really due to the direct effect of the syphilitic virus upon its organism, it is remarkable that "at birth" there should so rarely, if ever, be any manifestations of the disease upon the child. Many authors record their testimony in favour of this statement. M. Huguier has observed but one case at Lourcine. M. Cullerier has never seen one at the same institution. MM. Trousseau and Lasègue have never seen congenital syphilis at the time of birth. Dr. West "has never seen a case in which an infant at birth presented evidence of the venereal taint;" and certainly I never did, though I have on several occasions anxiously looked for it. On the other hand, there are a few cases recorded which seem to bear testimony in favour of such cases having been met with. Notably is the case mentioned by Sir Astley Cooper, and quoted by all writers. He says, "I have seen a child born at full term, whose nates and palms of hands and soles of feet were covered by a genuine syphilitic eruption. I gave the child Hyd. c. cretà, and it manifested little improvement." It is so unlikely that Sir Astley Cooper practised as an accoucheur that I conclude he records that which he was told, rather than what he actually saw. It is a common occurrence for an infant to acquire an eruption on the nates, &c., in the early days after its birth, and for the parent to speak of it afterwards as having existed at the time of birth. The following case illustrates my meaning.

CASE V.—A few weeks ago a medical friend sent me from a public institution an infant ten weeks' old, which he had been treating for three weeks as a case of congenital syphilis. The nates, thighs, and hypogastric region, as high as the navel, were covered by a dense, deep red rash, which was desquamating. The mother insisted that the rash existed at the time of birth, but upon cross examination admitted that she had not seen it until it was ten

days old, and that up to that time the child had been suffering from thrush and diarrhœa. When it was explained to her that the rash was caused by the presence of the wet and soiled napkin, she admitted that in saying it was present at birth she only expressed what she thought, as she was otherwise unable to account for it. A direction to keep the child clean and dry, and a little zinc ointment, sufficed to effect a cure in a week.

I feel therefore that I am justified in mistrusting the testimony in favour of syphilitic manifestations being seen at birth, and in concluding that the weight of evidence is entirely against it, which is a remarkable feature in a disease reputed to be capable of destroying the life of its victim, both before and shortly after birth.

SOME TIME AFTER BIRTH.

All authors concur in saying, that, in the majority of cases, the child who inherits syphilis has at first the appearance of health, and some weeks afterward presents signs which betray the evil transmitted to it from its parents. Usually it is from the first to the third month of extra-uterine life that syphilis is said to manifest itself in the new-born child. Diday has pointed out that the evidence of authorities and that of facts are agreed upon this point. But there is a disorder which occasionally occurs to a new-born infant, within a fortnight of its birth, which has often been attributed to congenital syphilis. I allude to Pemphigus. H. Roger says, "Pemphigus, when it is congenital, is without doubt a symptom of hereditary syphilis. It cannot be mistaken for simple pemphigus, which never breaks out before the sixth, eighth, or even tenth month after birth." The relation of this disorder to syphilis has been much discussed by French authors, and the general conclusion seems to be, that it is a manifestation of hereditary syphilitic contamination, especially so when it is developed on the palms of the hands and the soles of the feet. An excellent drawing of "Pemphigus Neonatorum" is given in M. Cuzenove's work. Both hands and feet are covered with bullæ surrounded by a violet areola. It appears to me much more like an erysipelatous affection than one having relation to the other forms of cutaneous disorder, which are considered to be characteristic of infantile syphilis. Dr. Tilbury Fox says, "Pemphigus is of the same nature as erysipelas," and this I believe is the true view to take of it. Respecting infantile erysipelas. Drs. Evanson and Maunsell observe "Inflammation of an erysipelatous nature

sometimes attacks infants, especially those born in Lying-in Hospitals. The disease in its worst form appears about the navel, or lower part of the belly; but it also frequently attacks the limbs, and particularly in the vicinity of joints, as the ankle and wrist. . . . The erysipelas which attacks the limbs in the first instance is milder in its nature. It often however makes its attacks so speedily after birth, that we have not time to recognise any premonitory signs." In a little work I published twelve years ago,* I wrote a chapter on "The Pyæmic Diseases of New-born Infants," wherein I endeavoured to show that several disorders, including erysipelas, were of that nature, and that the source of infection was an unhealthy suppuration at the umbilicus, which was provoked by the child being exposed to certain unfavorable conditions, which caused diarrhoea and a consequent degree of exhaustion, before the umbilicus was healed, when absorption occurred and erysipelatous symptoms of various degrees of intensity were developed. The following case, which was then published, illustrates this. I may here remark that I can vouch for the absence of syphilis in this case, having attended the family for twenty-five years, and watched the growth of eight other children. It is very probable that many of the cases of the supposed appearance of congenital syphilis, at, or soon after birth, are of this nature, and that the interval between the birth and their first appearance has been forgotten or overlooked. These erysipelatous affections are of course very severe and generally fatal, hence it may be that Trousseau was induced to say that "congenital syphilis is nearly always mortal if it show itself within the first fortnight after birth."

CASE VI.—*Erysipelas in a newly born infant, resulting from suppuration at the umbilicus.*

An infant, born on June 20th, 1857, in consequence of improper management, became very ill, and on July 1st, I observe that there is suppuration at the umbilicus, and that the skin of the abdomen, thighs, and vulvæ are in a state of erysipelatous inflammation.

July 2nd.—The vulvæ and nates are swollen, red, and hard. The redness has extended to the neck and down to the ankles, but has subsided on the abdomen; the umbilicus is dry, but not healed.

* *A New and Rational Explanation of the Diseases of Infants and Mothers.* Churchill, 1861.

Abseesses have formed on dorsum of right hand, and on right foot.

July 3rd.—Abseess on right hand more circumscribed, that on foot diminished. Skin of right leg very red and swollen; dorsum of left foot red, swollen, and doughy; swelling and redness over left sterno-clavicular articulation.

July 4th.—Opened abseess on hand and evacuated a good deal of pus; that on right foot is subsiding. The redness has extended up the side of the face and down the arms to the elbows, where there was much desquamation. The child died early on the 6th.

It does not appear that any one but myself has observed the connection between the imperfect healing and suppuration of the umbilicus and the occurrence of erysipelatous disease. Since I have done so, I have successfully endeavoured to prevent the disorder entirely, and I have not therefore the records of many cases to support my argument; but taking my own experience, together with what I have read, I have arrived at the following conclusion, which I submit for the consideration of those who may meet with opportunities of making further observations on this part of the subject:—That pemphigus and other forms of erysipelatous disease, which may occur within a fortnight after birth, and which have been regarded as syphilitic accidents, are pyæmic affections resulting from an unhealthy suppuration of the umbilicus, which is produced by the child being subjected to certain unfavourable conditions.

I come now to consider those appearances which are generally recognized as indicating congenital syphilis, and which consist for the most part of inflammations of the mucous membranes and skin, declaring themselves at different periods after birth, varying from two or three weeks to three or four months; and also to invite attention to a more simple explanation of their nature, than that they depend upon a lethal virus pervading the child's system which has permitted it to grow and thrive, with every appearance of health, until the parts affected have been for some time exposed to external conditions powerfully able to produce the disorders affecting them. Much stress is laid by the French writers upon the period after birth when congenital syphilis is said to discover itself. Trousseau says, "Syphilis may attack the infant during intra-uterine life, or it may not manifest itself till after birth, in which latter case there are no signs at birth of the disease, the germ of which exists, and will de-

velope itself sooner or later, but rarely before the second week, and it is very exceptional for the disease to make its first appearance after the eighth month, usually it appears about the fourteenth or fifteenth day after birth." M. Henri Roger says, "From a collection of two hundred cases it follows that inherited syphilis discovers itself in nearly one half before the expiration of the first month, and in seven-eighths before the end of the third month after birth. If syphilis breaks out after the third month, the probability is great that the disease is not inherited."

Trousseau says, "Coryza is the earliest symptom of infantile syphilis." Under this term is included inflammatory affections of the conjunctivæ, the Schneiderian membrane, and the lining of the outer ear, to all of which maladies young infants are very liable. Ophthalmia neonatorum, a very common affection, is included by Bertin and other earlier French writers, among the manifestations of congenital syphilis, but I think later observers have limited the imputation of a venereal origin of this malady to its supposed dependence upon gonorrhœa. If it depended, however, either upon an intrinsic disease, or merely the contact of an irritating fluid during the act of birth, why should ophthalmia delay its appearance until five, seven, or ten days after birth? Or why should it appear then? It seems much more reasonable to attribute it to some external cause operating deleteriously upon the delicate eyes. That this is so is easily proved. A newly-born infant if kept with its eyes exposed to the direct rays of light will certainly have ophthalmia; darken the chamber however, and it will recover. If, on the other hand, it be kept in the shade, it will as certainly escape that disease altogether. The delicate Schneiderian membrane of a young infant is obviously more likely to be susceptible of atmospheric influences than that of an adult, it is not then remarkable that it should sometimes become the subject of a catarrh, yet "the snuffles" is considered a very characteristic symptom of infantile syphilis. This apparent anomaly is attempted to be explained by the French recognizing a special coryza, concerning which M. Roger says, "This chronic irritation of the Schneiderian membrane is essentially different from that caused by cold. The latter usually supervenes two or three days after the infant's birth, and coincides with epiphora and bronchitis. Syphilitic coryza at first occasions dryness of the mucous membrane and impedes breathing, a sero-purulent secretion soon follows, sometimes tinged with blood, and containing squamæ

which indicate superficial ulceration." I protest that the above distinctions are not true. Daily experience teaches that an infant may become the subject of "snuffles" at any time when the conditions surrounding it are of a nature to irritate the Schneiderian membrane, and that the severity or duration of the disorder will be entirely regulated by those conditions or the means employed as treatment. Neither is it the fact that the severer form is looked for in the diagnosis of congenital syphilis. The doctrine taught at the present time is, that "snuffles" simply is to be regarded as a characteristic symptom. The following case lately occurred in my own practice, and serves to refute the views expressed by M. Roger.

CASE VII.—*Snuffles occurring in an infant a month old.*

On March 19th, 1873, I was summoned to see an infant one month old, the sixth child of a family of position whom I have attended for many years, and in whom I am quite sure there is no taint of syphilis. The child had been quite well until the 16th, when it showed symptoms of what the nurse called "snuffles." The nostrils became partially blocked and discharged thick yellow matter; this continued, and on the 18th a piece of yellow matter of considerable size came down. At my visit the discharge was only watery, but it was evident that respiration through the nostrils was impeded. The child was in all other respects in good health. I directed the nose to be fomented with warm water, and a weak solution of chlorate of potass to be injected. There was no further anxiety about the case, a little bloody discharge appeared occasionally during the next three weeks, and the respiration was somewhat impeded, but by that time the symptoms entirely subsided, and the child has since been quite well.

Cases similar to the above are common enough, and do not demand the supposition of a venereal taint to explain or cure them.

I have occasionally met with otorrhœa in a young infant. In one very severe case lately, a copious thick yellow discharge from both ears persisted for several weeks, but at length yielded to a free syringing daily with a solution of sulphate of zinc. It never occurred to me to attribute this to the child being infected with syphilis; in fact, my knowledge of the family would at once have forbidden the idea. This child has since continued in good health.

The mouth may become the seat of disorder, and much is made

of this in favour of a theory of congenital syphilis. A young infant must feed by sucking, and, being entirely dependent upon its nurse for the source of nourishment, is it surprising if it should make its mouth sore by efforts to satisfy its cravings when difficulties are opposed? The French are accustomed to farm out their children, and it is usual for a nurse to undertake to suckle two or more children. It is no wonder, then, that these children's mouths, and the nurse's nipples, become sore, even to the extent of being torn off. This is the true nature of thrush and other kindred inflammations of the mucous membrane of the mouth. A hard india-rubber teat, or any badly arranged medium for sucking, will cause an infant's mouth to be sore; but attention paid to the cause will at once suggest the remedy. Why, then, should a sore mouth or some soreness of the lips be attributed to a constitutional disease, when there is such an obvious cause operating to produce the malady?

The manifestation most relied upon as diagnostic of congenital syphilis is some form of cutaneous eruption. M. Caillaut says, "The cutaneous phenomena constitute the whole disease in infants; the mucous patch is the true pathognomonic symptom of congenital syphilis of which it constitutes the whole external manifestation." Other writers are more comprehensive in their views of the skin eruptions, and include every form which an inflamed skin can assume, from a simple erythema, to a decided ulceration and a growth from the base of it. The illustration of "Infantile Syphilis" given by Professor Erasmus Wilson in his book of plates is that of an infant eleven months old. "On the outer side of the hips, thighs, and legs, there are broad irregular patches of erythema of a dusky red colour, smooth and polished from slight tumefaction of the derma, and consequent obliteration of the cuticular markings of the skin, having a peculiar metallic lustre and gently raised along the border." The evidence of syphilitic disease in the parents of the child seems to be most meagre. "The mother, aged twenty-six, with the exception of some leucorrhœa and an occasional sore throat, set down by her medical attendant to influenza, since her marriage had enjoyed excellent health, and at time of observation had no symptom of syphilitic disease. Her husband was a vigorous man, who also enjoyed good health; there was no opportunity, as there was no necessity, for going into his previous history." The situation and limitation of the inflammation of the skin points much more forcibly to its being caused by the child reposing on an over warm bed or flannel soaked

with urine, than does the parental history to the child having inherited syphilis.

I have lately seen a case closely resembling this drawing, in which it was quite clear that the condition I have suggested was the real and only cause of the ailment. There is no difference of opinion as to the situation of these characteristic cutaneous inflammations; all concur in fixing them about the buttocks and thighs, ("*les fesses et les cuisses*,") which necessarily include the genitals and anus; and this fact seems, by a strange perversion of reasoning, to weigh heavily in the argument in favour of the malady being venereal, as if it were inferred that because adults communicate venereal disease to each other by contact of the genital organs, therefore the disease must have a natural habitat in those regions, and a disorder appearing on or about the genitals of an infant (obviously innocent of any sexual operations) is likely to be of a venereal nature.

The powerful influence of warmth, moisture, and the contact of woollen materials with a delicate skin, in producing cutaneous disorders of various degrees and forms, seems not to have been appreciated in relation to these cases, but this appears to be sufficient to account for all the phenomena observed. The parts affected are those necessarily exposed to it through the use of napkins and flannel wrappers employed to absorb the urine and feces; and amongst the poorer classes who are unable to provide linen napkins of ample dimensions, this evil is aggravated by the use of small pieces of calico which are necessarily applied tightly over the buttocks and genitals, and thus by pressure and friction provoke inflammation of the contiguous delicate skin. The distempers established by these means may assume any of the forms of cutaneous disease which are regarded as characteristic of syphilis. This may easily be proved by treating such cases by directing the napkins to be as much as possible dispensed with, and all flannel material to be removed from direct contact with the skin. Any inflammation or ulceration of the skin will then quickly heal if dressed with strips of linen spread with an ointment made with equal parts of lead plaster and zinc ointment melted together. I have never seen a case which did not get well under this plan of treatment.

I invite attention to an excellent photograph of "Syphilis Infantile" in "*Clinique Photographique de l'Hôpital St. Louis*," by MM. Hardy and Montmeja. The nates are inflamed and

excoriated in a severe degree. The skin of the loins, back, and legs is free from eruption. It appears to me that a coarse flannel employed to absorb the child's excretions could alone produce this disorder.

The following cases are illustrations of this.

CASE VIII.—S., æt. fifteen months, sent to me on April 1st from a public institution as a case of congenital syphilis; there was an ulceration, the base of which appeared raised above the skin, on the right buttock, extending from the anus, but limited to the part where the opposite buttock touched it. Had been under treatment one year with Hyd. c. cretâ, &c. The mother was a very poor and dirty woman, the child always wore a small dirty napkin, and had had a good deal of diarrhoea. I directed the napkin to be left off; the parts to be kept clean, and dressed with the ointment of lead and zinc above described. On May 1st the ulceration was quite healed. On the 15th only the scar of it was visible; in other respects the child was well.

CASE IX.—F. C., æt. three months; first child; parents appeared healthy and denied having had syphilis. Had been treated at a hospital for six weeks for congenital syphilis. On April 22nd the buttocks, thighs, scrotum, and inguinal region were inflamed and sore. Was taking Hyd. c. cretâ, and was often sick. Bowels relaxed. There was a slight discharge from the right nostril. Advised the mother to leave off the powders and napkins, and to dress the inflamed skin with the ointment. On April 26th, having been short-coated, it seemed to be quite well.

CASE X.—E. P., æt. five months, had been attending the hospital for two months; during which time she had been taking Hyd. c. cretâ three times daily, for alleged congenital syphilis. On April 22nd the skin of the nates, thighs, and hypogastric region was intensely inflamed; in other respects the child was well, except some looseness of the bowels. Advised the mother to discontinue the powders, to keep the child cooler by throwing off some flannel wrappers, to avoid the napkins as much as possible, and to dress the skin with the ointment. On the 26th the inflamed skin was nearly healed, but some redness remained. On May 14th the child was quite well.

CASE XI.—J. H., æt. nine months. The mother had taken him to the hospital once every week for the previous six months; (yesterday

she went at nine a.m., and only reached home again at half-past three p.m.) During the whole of this time he had been taking powders of Hyd. c. cretâ three times daily, for supposed congenital syphilis, the symptoms of which still existed, viz., an ulceration at each side of and close to the anus, also two small ulcerations at the junction of the scrotum with the perineum. His general health had been good, but lately he had had a very sore mouth, and now had some swollen cervical glands. He was pallid. He always wore a small napkin because of loose bowels. Advised to discontinue the powders and napkin, and to dress the ulceration as above. I lost sight of this case.

CASE XII.—On November 26th, 1872, I saw at a hospital, a case which was pronounced typical of congenital syphilis, and listened to a short clinical lecture upon it. The child was three months old. The symptoms which were pointed to as characteristic were an eruption on the nates, upper part of thighs, and inguinal regions, consisting of redness and some spots, some of which were ulcerated, and were pronounced mucous tubercles. Other signs were pointed out as diagnostic, but they appeared to me hardly cognizable: these were a *café au lait* colour of the skin; a patch of paleness of the mucous membrane where it is stretched from the hard palate on to the gum, said to be also mucous tubercle; and a depression of the bridge of the nose.

I followed the woman to her home and observed the following conditions, which were obviously sufficient to account for the cutaneous eruption. She was poor and possessed but a small stock of nursery materials; in order to save her bed from being soiled by its excretions she was accustomed to wrap the child in a coarse flannel, and so let it remain for twelve hours without a change. Although previously in good health, it was now suffering from diarrhœa, the effect of doses of Hyd. c. cretâ, which had been prescribed for it three times daily. The parents both satisfied me that they had never had syphilis. I advised a discontinuance of the powders, and more attention to be paid to keeping the child clean and dry, and I procured for it some linen napkins in place of the coarse flannel and small pieces of calico then in use.

On December 12th I found the eruption quite well, and the child much better in health, having regained its appetite, which quite failed while taking the powders.

On August 8th, 1873, I sought out this child, and exhibited it

at the Annual Museum of the British Medical Association. It had grown and thriven in the best manner possible; being now a remarkably strong and healthy child, which could hardly have been the case if it had really been the subject of congenital syphilis.

CASE XIII.—A few years since a gentleman kindly gave me the address of a child he was attending at a public institution, and which he regarded as a typical case of congenital syphilis. I visited it, and found as usual that the diagnosis was based mainly on sore buttocks. The parents convinced me that they had never had syphilis. They were very poor people, with insufficient nursery accommodation. I found the child sitting upon a pile of rough woollen horse clothing, into which it discharged its excretions, and the mother informed me that it was here where she always placed it when she was engaged in her domestic duties. The inflammation was limited to the skin which was in contact with the woollen material, and the evil was increased by the state of diarrhoea which was maintained by the dose of Hyd. c. cretâ which it took three times a day. The mother was very glad to have the true nature of the case explained to her, and soon cured her child.

CASE XIV.—On May 7th, 1873, a medical friend kindly sent to me a case which was seen by many acknowledged competent observers, and pronounced by all to be a typical case of congenital syphilis. The symptoms were as follow:—Very loud snuffles, weak voice, abundant eruption on legs, thighs, and nates, some on chin, face, and scalp. The right arm was thickly covered. The eruption consisted chiefly of circular discs with a dark centre and colourless space between it and the circumference; some were vesicated, resembling spots of variola; others, especially those about the anus and vulva, were ulcerated and moist, thus constituting mucous tubercles.*

The mother is apparently healthy, aged twenty-seven, twice married; in her first wifedom she had a still-born child, and a miscarriage. Two years ago was again married, and has since had

* The French writers frequently refer to the resemblance of these eruptions to that of small pox, designating them "*les eruptions varioliques*." M. Devergie gives a drawing, marked "*Pustules Muqueuses ressemblant aux boutons de la variole*." Plate 19.

This character was well marked in the above case.

only this child. Both parents deny having had any venereal disease. The following were the unfavourable conditions which seemed to me to be the cause of the symptoms. The child was much wrapped in dirty flannel clothing; on its head was a red flannel cap or bonnet with a curtain, which hung down the back of its neck; around the neck was a woollen wrapper, in which the chin was buried, and which was dripping wet with saliva. Its thighs and legs were enveloped in a thick coarse flannel wrapper, which, with the napkin, was saturated with urine and fæces; it was besides closely covered by its long clothes. The mother, being left handed, could only carry the child on that side, hence its right arm was always in contact with her dirty red woollen shawl. She was also very poor and ignorant. I forbade any treatment except keeping the child cleaner and cooler.

On July 22nd I vaccinated it, and on the 29th, four good vesicles having been developed, I vaccinated myself from one of them, taking care to have some blood mingled with the virus. A good modified vaccine vesicle was produced on my arm, and has since healed up perfectly, leaving a fair scar.*

On August 8th I exhibited this child at the Annual Museum of the British Medical Association; and as all who saw it declared the eruption to be characteristic of congenital syphilis, I got my friend, Dr. Westmacott, to make a drawing of it, which is here reproduced. (Plate III.) Previously I had taken no pains to heal the eruption, but I now asked the mother to keep it dressed with the ointment, and in a fortnight it had all healed, and the marks were fading out. The child all the while has remained in good health, and is now growing and thriving perfectly. With this favourable result, and the proved innocence of the inoculation from the vaccine vesicle, it is fair and reasonable to infer, that this was not a case of infantile syphilis, and consequently it goes far to support my opening statement, that the subject is involved in much error.

I could relate several more cases to the same effect. One woman, who seemed quite to apprehend the force of my explanation, showing me an elder child, remarked, "When this one was an infant, she suffered in the same manner, and she was treated for some time with the grey powders, but she did not improve until I

* November 1873.—Four months have now elapsed, and I am free from any syphilitic symptoms.

short-coated her, she then soon got well, and I have no doubt this one will do the same;" thus pointing to a very important feature in the means of recovery of many of these cases. Dr. Drysdale has published the case of a child, eleven weeks old, having on May 17th sore buttocks, which he considered to be congenital syphilis. He treated the case without mercury. In July it was nearly well; in October quite well. I suggest that the customary shortening of the clothes may have contributed materially to the cure in this instance. Mr. Allingham has invited attention to a favourable result of treating these cases, by directing them to be sponged twice a day with warm water, and zinc ointment to be applied to the inflamed skin. He tells us that of cases so treated, only one in fifteen died, whereas twenty-nine per cent. of those treated by mercury were fatal.

In spite of the favourite assertion of some physicians that infants fatten on a course of mercury, there is plenty of published evidence to show that the mortality of those submitted to this treatment is considerable. Dr. Drysdale mentions an infant eleven months old, plump and well grown, but covered with an eruption, treated by mercurial ointment on a flannel bandage. On November 8th the eruption had disappeared. On the 15th the child was dead. I would likewise direct attention to the case published by the late Dr. Tanner, in the first volume of the Transactions of the Obstetrical Society. An infant, a fortnight old, was pronounced to be suffering from syphilis. On October 7th ten grains of Ung. Hydrarg. was prescribed to be rubbed into the skin, night and morning. On November 12th the child died in the doctor's room. The only post-mortem appearance detected was a watery state of the blood. Thus well illustrating the characteristic spanæmic action of mercury. Dr. A. Förster records that "among thirty-six cases death occurred in all but one, before the close of the first year, mostly during the first few weeks or months of life;" and in another paper, speaking of treatment, he says he uses "chiefly the proto-iodide of mercury."

The use of macintosh sheeting as an outside napkin, or to protect the child's bed, is a cause of cutaneous eruptions which are sometimes thought to be syphilitic. I saw a case of this kind several years ago, which was pronounced positively by an eminent physician accoucheur to be one of congenital syphilis, and I saw the child quickly recover by simply removing the napkin. I have seen children whose bodies have been covered with lichenous

eruptions, in nurseries where the family has increased faster than the means of the parents to provide efficient and sufficient nursing power. Indian-rubber is then freely used, flannels are sparsely washed, and the skins of the children manifest, by various forms of inflammation, that they have been subjected to some powerfully irritating conditions. I consider it equally as erroneous to attribute such cases to teething as to congenital syphilis. The cause of them is obvious enough if it be looked for.

The vulvæ and scrotum are apt to become ulcerated, because it is on these parts that the strain of the application of the napkin is brought to bear, and hence it is that an ulceration once established there will persist as long as the use of a napkin is persevered with. Ulcerations occur and persist around the anus because of an intensity of the provoking cause. This part is exposed, not only to the constant heat and wet of the napkin, but to the influence of the highly irritating properties of the discharges from the intestine which are peculiar to the green stool diarrhœa of young infants. It is further irritated by the frequent wiping with a cloth, and, in consequence of the soreness, there is persistent contraction of the sphincter muscle, thereby drawing the nates into close contact. Some writers, I observe, refer the intestinal disorder to an extension of the disease internally from the anus, but surely this is not so reasonable as to attribute the soreness around the anus, in part at least, to the diarrhœa. Diarrhœa is the bane of infancy, there are few maladies independent of it, and if it persist long, or is severe, the infant must emaciate, and eventually succumb. Hence the appearance of the "miniature decrepitude" which is regarded as one of the chief characteristics of congenital syphilis. Billard believes that enteritis is the cause of it. Valleix ascribes it to thrush, and Bouchut considers it the result of gastro-enteritis. I suspect that, in all cases, diarrhœa and insufficiency of food are the two causes which principally operate to cause the wasting on which this state depends. The course of mercury, which is so commonly given with the object of curing the cutaneous eruptions, can only, except by a favourable accident, fail to promote it. I have found the principal cause of diarrhœa in young infants to be prolonged and forcible efforts to obtain their food by suction from a source which does not yield the coveted draught, (fruitless sucking,) and I have shown above that this is a principal cause of the inflamed lips and oral mucous membrane which has so frequently been regarded as a manifestation of syphilis. The sore mouth and diarrhœa constitute

the familiar infantile disorder known as thrush, a malady easily cured or prevented by taking care to avoid fruitless sucking. I have for many years past been accustomed to teach those engaged in rearing infants, so to manage them, that they have only two alvine discharges daily. If this be accomplished, and plenty of food administered, the best results of health and growth are attained.

Syphilis is not more prevalent among the poorer than the better classes of society. The cases of supposed congenital syphilis are principally observed among the poor and dirty people, who take their children to hospitals and dispensaries, and amongst whom the causes to which I assign the symptoms supposed by others to be manifestations of syphilis, are in force in much greater intensity; yet I am accustomed occasionally to see precisely the same in the nurseries of the wealthy. No one supposes that the effects of the syphilitic virus would be altered by the condition in life of the sufferer; we should therefore look for the same phenomena in all ranks of society, and thus I have found it. I have never seen anything in any rank to lead me even to suspect that a child suffered from its parents having had syphilitic disease.

The following cases illustrate this.

CASE XV.—*Syphilis in the father ; healthy children.*

A gentleman, aged twenty-seven, contracted a primary sore in July, 1866. In August he had ulcerated throat. In September he came under my care with an ulcer on the prepuce and secondary eruptions on body. In November he had pain in the shoulder, and a little hardness detectable in the cicatrix of ulcer. In July, 1868, he had severe pain in the right arm, shoulder, and scalp. On August 13th he was married. On the 14th he wrote to say the pains in the head are worse, and are getting unendurable. In December he was still complaining of vague pains about his scalp. In September, 1869, he had a slight attack of hemiplegia. In July, 1870, he died suddenly of apoplexy.

In July, 1869, his wife gave birth to twins, and in June, 1870, to another child, all of whom are remarkably strong and healthy.

CASE XVI.—*Syphilis in both parents ; healthy child.*

A married man contracted syphilis in the autumn of 1862. In the early part of 1863, he and his wife were under treatment for secondary symptoms. In 1868, the wife gave birth to a perfectly healthy child, which has since thriven and grown properly. The father is still suffering, and is now under treatment.

CASE XVII.—*Syphilis one year before marriage; healthy family.*

J. T. contracted chancre on March 1st, 1856. It was an ulcer on the 7th, and quite healed on the 24th, a hard base left. On April 24th he had lepra on arms and trunk, leaving copper coloured stains. Chancre again ulcerated. In May he was profusely salivated. In September he had sore throat and tongue. Ash coloured spots on velum palati, uvula, and tonsils; a hard raised spot denuded of epithelium on tongue. In July, 1857, he was married. His wife has given birth to five children, who have thriven well.

CASE XVIII.—*A married man, suffering from syphilis, begets a healthy child.*

R. R., married, father of several children, contracted syphilis in 1856. Was under treatment for ulceration of tongue, psoriasis of palms, &c., in August, 1857, and January, 1858. In July, 1858, his wife was delivered of a remarkably fine child, which has since thriven and remained healthy.

My object in the above remarks has been to invite attention to the value of those signs and symptoms which are relied upon as pathognomonic of syphilitic contamination of the infant, and to suggest that they are not really evidence of congenital disease, but are accidents arising from certain unfavourable conditions to which the child is exposed; and I have limited my observations to the signs of congenital syphilis in the infant, because this seems to be the foundation of the whole subject of hereditary syphilis. The French writers allege that if the disease breaks out after the third month, it is, in all probability, not inherited.

The conclusions which I have arrived at are here epitomized, and I submit them to the careful consideration of my professional brethren.

- (1) That the death of the foetus in utero is the consequence of some defect in the maternal system, resulting from contamination by the syphilitic virus, and that it is not necessary to infer, neither is there evidence to prove, that the organism of the child is intrinsically affected by it. The partial decomposition of the cuticle observed on the bodies of still-born children is satisfactorily accounted for by their maceration, probably for some weeks after death, in the liquor amnii.

- (2) That the records of cases of living children having been born with manifestations of syphilitic disease are so few as to allow of the supposition that they are not trustworthy.
 - (3) That pemphigus and other forms of erysipelatous disease which may occur within a fortnight after birth, and have been regarded as syphilitic accidents, are pyæmic affections resulting from an unhealthy suppuration of the umbilicus, which is produced by the child being subjected to certain unfavourable conditions.
 - (4) That the symptoms which are developed some weeks after birth, and are relied upon as pathognomonic of syphilitic contamination of the system of the child are mere accidents, arising *also* from certain unfavourable conditions to which the child is exposed, and that they are all preventible or easily cured when the cause producing them is recognized : and consequently,
 - (5) That the practice of subjecting infants to long courses of mercurial treatment is not necessary, and is prejudicial to their healthy growth.
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